

My present invention is related to an integrated database data editing system for editing and managing the relational database data contents remotely through intranet or Internet in an efficient and easy-to-use manner. The editing system contains the client computer visual graphic user interfaces and tools to input, output, modify, update and manage the database data, which is extremely useful for editing the large database objects such as the large text objects and binary objects. The TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols are used to communicate between the client and server computers, which guarantees the data transmission consistency and security. The client/server version of the system is implemented by using Java technologies and deployed on intranet. The web version is implemented by using web and Java technologies and deployed on Internet and also on any other network systems. The web version has more advantage to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall. The mechanisms for user authentication and access control to the database data editing system are well designed and implemented. All these functions and mechanisms are new and have not been disclosed in any previous arts.

**Gill et al.** (U.S. Patent No. 6,005,560) teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in printing and publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired publishing documents. The related information is stored in an item header file, as well as in a number of separated records. Gill et al. do not teach anything related to a relational database nor teach anything related to data editors (except using commercial text, picture, movie and sound editors) similar to the integrated database data editing system taught in my present invention Claims 1-7.

Gill et al. (col. 2, lines 46-50) teach that “The multi-media project management and control system has a number of different data bases for storing multi-media object data and information related to such multi-media object data so that more than one staff member is able to simultaneously obtain information relating to a particular multi-media object.” Gill does not teach anything related to a relational database here and nowhere else in his invention. A relational database is a software product which stores text or

binary data in a table with columns and rows, such as Oracle database, IBM DB2 database and Microsoft SQL Server database. A relational database communicates with other software components by DataBase Management System (DBMS) through Open DataBase Connection (ODBC) or Java DataBase Connection (JDBC) and by using Structured Query Language (SQL). You cannot assume that Gill's "...a number of different data bases for storing multi-media object and information..." teaches relational databases. Gill only teaches files and records in his invention.

**Allport** (US Patent No. 6,104,334) teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufacturers. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is capable of interacting with the internet or other data source to provide a rich set of functionality. Allport does not teach anything related to an integrated database data editing system as my invention.

Allport teaches that (col. 7, lines 60-66) "Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ..." and (col. 24, lines 28-31) "Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and paste objection and save and exist options." Here, Allport discloses to use a relational database to store some parameter entries in his remote control, and to use a pop-up menu to provide options for selecting an object. Allport does not invent a relational database nor a pop-up menu but just uses them to implement his remote controller. Allport does not teach anything similar to my invention of the integrated database data editing system.

Gill et al. teach that (col. 5, lines 12-33) "The multi-media object retrieval unit 56 is also connected to plurality of editing components which are illustrated as the text editor 64A, picture editor 64B, movie editor 64C, sound editor 64D to optionally edit the multi-media object. The editors 64A-D are interactive editors that enables a designer/editor to modify an existing multi-media object retrieved from the file server 28. These elements can be commercially available editing tools which are installed on various ones of the

processors which comprises the network..." and that (col. 4, lines 27-30) "The file server 28 provides access to all persistent file storage for commercially accessed multi-media objects. The data controller 32 controls the access to all multi-media object files that reside on the file server." Gill et al. use the commercially available text editor 64A, picture editor 64B, movie editor 64C and sound editor 64D to retrieve and edit multi-media objects from the file server 28. Gill et al. do not teach anything related to my present invention which uses the client visual environment, tools and data editors to retrieve and edit the server relational database data contents.

Gill et al. teach that (col. 4, lines 64-67) "Text editing unit 52 is used to create and modify the text of a multi-media object and includes a multi-media object retrieval unit 56, a user interface 60 and a text editor 64." and that (col. 5, lines 3-12) "In addition, the multi-media object retrieval unit 56 issues requests to display each retrieved multi-media object, via a user interface 60, to the designer/editor. To accomplish this, multi-media object request information flows from the designer/editor to the user interface 60 and on to the multi-media object retrieval unit 56 for multi-media object retrieval from the project coordinator 24. Once the multi-media object is retrieved, display options are set and the multi-media object is presented to the user interface 60 to be displayed." Here, Gill et al. teach a multi-media object retrieval unit 56 which communicates with the project coordinator 24 and the user interface 60 and text editor 64 to retrieve, display and modify the multi-media object. A designer/editor uses the interactive editors 64A-D to modify an existing multi-media object retrieved from the file server 28 (col. 5, line 12-18). Gill's system does not use relational database and the file server 28 does not contain a relational database. Gill's user interface and commercial editors are totally different from my integrated database data editing system, wherein the mechanisms and functions of the client computer user interfaces and editors are well defined, and the client computer user interfaces directly retrieve and edit the relational database data from the remote computer server database.

Gill et al. (col. 5, lines 45-67) teach the integration of multi-media types of data into a multi-media presentation by adapting the printing medium system to the multi-media environment, and the workflow and steps to manage the multi-media presentation development process for a single multi-media object. My present invention does not

integrate multi-media types of data into a single multi-media presentation or printing page. Gill's system is not related to my integrated database data editing system.

Allport discloses (col. 7, lines 60-66) "a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ..." and (col. 24, lines 28-31) "editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and paste objection and save and exist options." Allport uses a relational database to store some parameters entries for his remoter controller and uses a pop up menu to display and edit options. Allport's remote controller does not relate to Gill's multi-media project management and control system nor relate to my integrated database data editing system.

Gill et al. (col. 8, lines 49-62) teach that the multi-media presentation access controller 320 controls access to the project coordinator by using a staff member's logon name and password. Gill et al. do not invent the logon name and password. It is one of the industrial standards to secure the application access by using user's login id and password. I use the user id and password the first time to implement my integrated database data editing system. Gill et al. do not teach anything related to secure the access to my integrated database editing system as described in my Claim 1(v) that "said database data editing system implements user authentication and access control mechanisms which assigns different user groups with different privileges."

**Bowman-Amuah** (US Patent No. 6,256,773 B1) teaches a system, method, and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The information relating to the changes may include the user, area affected, priority, cost, authorization and time. The tools may be adapted for managing the different versions of the program code for different development stages and to facilitating packaging. Bowman-Amuah does not teach anything related to my present invention.

Bowman-Amuah teaches that (col. 53, lines 23-29 or paragraph 1031) "Repository access can sometimes be controlled using an access control function, which comes with the repository. A common technique is to group users and assign different access rights to the different groups. Each of these groups is also assigned specific

read/write/delete/modify authority. For example, the following groups may be defined as having increasing rights:”. Bowman-Amuah does not invent the technique to assign different user group the different access rights. It is one of the industrial standards to assign different access rights to different user groups. I use it the first time to implement my integrated database data editing system in the present invention. Bowman-Amuah does not teach anything related to my Claim 1(v) that “said database data editing system implements the user authentication and access control mechanisms which assign different user group with different privileges.”

Gill et al. teach (fig. 4) an overall architecture of a multi-media presentation generation system, which illustrates a desktop publishing environment of a single computer processor P. The sources of media objects S1-S6 are graphics downloaded from external sources (col. 12, line 57-58). Gill et al. do not explicitly teach where the file server 28 is located and how the multi-media objects are retrieved from the file server. Gill’s file server contains no relational database and is not related to my integrated database data editing system as the present invention.

As I argued above, Allport (col. 7, lines 60-66 and col. 24, lines 28-31) uses a relational database to store some parameters entries for his remoter controller and uses a pop up menu to display and edit options. Gill et al. do not use a relational database in their multi-media project management and control system. Allport’s remote controller does not relate to Gill’s multi-media project management and control system nor relate to my integrated database data editing system as the present invention.

Gill et al. (col. 16, lines 48-49) use a pop-up menu, window and line to implement multi-media objects, which are different from my Claim 4(i) wherein a Detail Panel is popped-up by double-clicking the database name on the Head Panel. Gill et al. (col. 15, lines 5-8) use a “hot text” to perform a desired action by placing the cursor or clicking the mouse on it, which is different from my Claim 4(ii) wherein a database table is popped-up by mouse double-clicking the table name. The pop-up menu, window form, “hot text”, cursor and mouse-clicking, etc. are standard computer user interface functions, and Gill et al. do not invent them. I first time use these industrial standards of Windows frame layout (header panel and detail panel) and mouse action (double-click) to implement the user interfaces of my integrated database data editing system.

Gill et al. teach that (col. 12, lines 57-67) “The sources of media objects S1-S6 are graphics downloaded from external sources, such as CD-ROM S1 or disk drive S2, graphics generated by additional software resident on the processor P or graphics that are scanned into the system via a peripheral device. Furthermore, video information likewise is obtained from a plurality of external sources including, but not limited to, data communication connections S4 to the file server 28 of the multi-media project management and control system 20 or to broadcast media, such as Internet or broadcast television, video tape recorders S3, or live feeds S5 from a camera or other such appropriate source of video information.” Gill et al. only teach that the multi-media objects are “downloaded” or “obtained” from the external sources S1-S6. Gill et al. do not teach anything related to my Claim 6 where the client/server version of the integrated database data editing system is deployed and run on the intranet.

**Koppolu et al.** (US Patent No. 5,801,701) teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a compound document with a Spreadsheet object embedded in a Word application.

Koppolu et al. do not teach anything related to my invention of the integrated database data editing system. Koppolu et al. (fig. 32) teach an example application that uses a form architecture as the basis for its user interface, including a menu bar (3203) and application workspace areas (3204 & 3205), which is different from my Claim 3 wherein the Database Data Manager contains a Head Panel and a Detail Panel. When a user clicks the database name or the table name listed on the Head Panel, the corresponding Detail Panel is popped up and the detailed function or data is displayed.

**Moursund** (US Patent No. 5,644,739) teaches a system and method for intuitively adding a button or other type of control to a tool bar or other region of a Windows form for holding the same. A control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund’s system is totally different from my invention of the integrated database data editing system.

Moursund (fig. 4G, 112, col. 5, lines 39-45) teaches a button creation process for customizing the toolbar of the Microsoft Access GUIs (Graphic User Interfaces) with some functions of the Access Database, which is totally different from my Claim 5. Microsoft Access is a very simple PC relational database with very limited functions and only supports small data types but not the large text and binary data types. The Access GUIs cannot be separated from the database and both GUIs and database can only run in the same PC. The Detail Panel of the Database Data Manager in my Claim 5 is installed in the client computer and separated from the remote server computer database by the networks, and is used to remotely access, edit and manage the server database through either intranet or Internet by using TCP/IP based connection-oriented protocols. As I mention above, the technologies for PC application, client/server application in intranet and client/server application in Internet are totally different. Furthermore, the Detail Panel in my Claim 5 contains totally different tools and functions from Moursund's form.

As I state above, Gill et al., Koppolu and Moursund do not teach anything related to the intranet or Internet relational database data editing system as my present invention. The systems and methods of Gill et al., Koppolu and Moursund are not related each other.

Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a document page, which is totally different from my Claim 7 wherein the web version of integrated database data editing system is implemented with the Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) and is deployed on Internet and also intranet.

Gill et al. teach a multi-media object presentation system. Allport teaches a remote controller. Gill et al. and Allport do not teach a system deployed and run on the Internet and also intranet as my present invention.

**Teper et al.** (US Patent No. 5,815,665) teach an online brokering service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the brokering service, and are provided with respective client and server software components for using the brokering service. Teper et al. do not teach anything related to my present invention of the integrated database data editing system.

Teper et al. (col. 17, lines 23-33) teach a method to encrypt data by session key and also by Secure Sockets Layer (SSL) protocol. The Public Key Infrastructure (PKI) technology has been widely used as an industry standard since 1970's and the Secure Socket Layer (SSL) is also widely used as an industry standard for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. In my invention, I first time use the PKI and SSL security technologies to encrypt and secure the database data transmission between the client computer and the server computer through Internet and intranet.

### **#3. “Claim Objections”**

My Claims 1-2 and 4-7 cannot be objected because the antecedent informalities. I make some minor plural verb and indefinite article corrections: (1) replace modify, edit, update with modifies, edits, updates in Claim 1(i)-(iii); (2) delete “the” in Claim 1 (v); and (3) replace “The” with “A” in Claims 6-7. The followings are my responses and arguments corresponding to each claim:

Claim1: “said database data contents” (lines 3-4) and “the database data” (line 6) refer to “a relational database” (line 3); “the data” (line 7) and “the large text data type and large binary data type” (line 11-12) refer to “the database data” (line 6); “the original database” (line 8) refers to “the remote server computer database” (line 6-7); and “the” (line 17) is deleted.

Claim 2: “said database data on each table cell” (line 4) and “said database small text data on each table cell” (line 5) refer to “a database table or a subset data of a table” (line 2); “said commercial editor” (line 9), “the data editor” (line 11) and “said data editor” (line 13) refer to “graphic user interfaces and tools” (line 2) and “commercial text and multimedia data editors” (Claim 1, line 12); “the database data” (line 10) refers to “small icon of a table cell” (line 10) which links to and downloads the data from “a relational database” (Claim 1, line 3); “the edited data” (line 11) refers to “the database data” (line 10); “the original database” (line 12) refers to “a relational database” (Claim 1, line 3).

Claim 4: “a Detail Panel” (line 3) refers to “a Detail Panel” (Claim 3, line 2); and “the database name” (line 3) and “the table name” (line 4) refer to “a list of database and database tables” (lines 1-2).

Claim 5: “the database” (line 2) and “the remote server database” (lines 10-11) refer to “a relational database” (Claim 1, line 3); and “the entity relationships of the database tables” (lines 3-4), “the database tables” (line 5) and “the database data structure” (lines 6-7) refer to the properties of “the database” (line 2).

Claim 6: I replace “The” in “The client/server version” (line 1) with “A”.

Claim 7: I replace “The” in “The web version” (line 1) with “A”.

#### **#4. Claims 1, 4 & 6 Rejections-35 USC § 103(a)**

My Claims 1, 4 and 6 are totally different from the arts of Gill et al (US. Patent No. 6,005,560) in view of Bowman-Anuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334), and cannot be rejected under 35 U.S.C. § 103(a). My Claims 1, 4 and 6 are original, significant and patentable under 35 U.S.C. § 101.

Gill et al. teach a multi-media presentation system for coordinating staff access to multi-media presentation data and related information, which is useful in printing and publishing industry to manage and coordinate the efforts required by the publication staff to produce the desired publishing documents. The related information is stored in an item header file, as well as in a number of separated records. Gill et al. do not teach anything related to relational database nor teach anything related to data editors (except using commercial text, picture, movie and sound editors).

Bowman-Amuah teaches a system, method, and article of manufacture for affording consistency in a development architecture framework as components in the framework change. The information relating to the changes may include the user, area affected, priority, cost, authorization and time. The tools may be adapted for managing the different versions of the program code for different development stages and to facilitating packaging. Bowman-Amuah does not teach anything related to relational database or data editors as my present invention.

Allport teaches a remote control that uses IR (infrared) commands to control various consumer appliances made by various manufacturers. The remote control is low-cost, consumer-friendly, programmable, has its own graphical display so it does not interfere with a TV or other viewing screen, and is capable of interacting with the internet or other data source to provide a rich set of functionality. Allport does not teach anything related to my integrated database data editing system of my present invention.

Regarding my **Claim 1**, Gill et al. do not teach anything related to relational database as my invention, wherein “an integrated relational database data editing system providing a visual environment, graphic user interfaces and tools in a client computer to remotely access a server computer that contains a relational database and to manage and edit said database data contents through either intranet or Internet, and said system includes the following mechanisms and characters:...”.

(i) Gill et al. (col. 4, lines 43-51) teach that the utility programs communicate with the data controller to control access to multi-media object files supplied by a file server (not database) for staff member client applications or for being written to the storage device (col. 10, lines 13-15), which is totally different from my Claim 1(i) wherein “said client computer retrieves database data from the remote server computer database, modifies, updates, input, output the data and then sends the data back to the original database;”. Gill et al. fail to explicitly indicate what the file server is and where it is located (because the technologies are totally different for the PC applications to the client/server applications in intranet or client/server applications in Internet).

(ii) Gill et al. (col. 4, 66-67) use a user interface 60 and a text editor to create and modify the text of a multi-media object, which is different from my Claim 1(ii) wherein “said client computer directly edits and modifies the database data without writing detail computer language codes in an efficient and easy-to-use manner;”. Gill et al. fail to teach what the user interface and text editor are, and how the data is edited.

(iii) Gill et al. (col. 4, line 66, col. 5, lines 1-18, fig. 1, 64A-D) use the commercial text editor, picture editor, movie editor and sound editor to retrieve and edit the multi-media objects from the project coordinator and file server (not database), which is not similar to my Claim 1(iii) wherein “said client computer directly edits and modifies

the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors installed on the client computer;”. There are many commercial multimedia editors available. My invention is the first time to directly implement these commercial editors as elements of the editing tools to edit the database large data types, which is just like that the architects use bricks and steel to build a building.

(iv) Gill et al. (fig 4, S4, col. 4, lines 40-51) teach that a cable links the computer processor P to network, and the client applications communicate with project coordinator, utility programs and data controller to control access to multi-media object files supplied by the file server (not database), which is different from my Claim 1(iv) wherein “said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers;”.

(v) My Claim 1(v) teaches “said database data editing system implements user authentication and access control mechanisms which assigns different user group with different privileges.” My invention first time uses these security mechanisms in the integrated database data editing system, which is different from the arts of Gill et al., Bowman-Anuah and Allport.

Gill et al. (col. 8, lines 49-62) teach that “the multi-media presentation access controller 320 controls access to the project coordinator 24 by establishing the validity of a staff member’s logon name and password. In addition, the multi-media presentation access controller 320 also establish the authorization of a staff member to access the multi-media objects 304 related to a selected multi-media presentation. Once access to the project coordinator 24 is granted, access privileges are checked to determine which multi-media presentation, multi-media presentation section and multi-media object type a staff member can potentially access as long as the multi-media project management and control system 20 client application being used by the staff member can process the multi-media object file type.” Gill et al. do not invent the security mechanism of logon name and password. It is one of the industrial standards to secure the application access by using user’s login id and password. Gill et al. do not teach anything related to secure the access to my integrated database editing system as described in my Claim 1(v).

Bowman-Amuah teaches that (col. 53, lines 23-29 or paragraph 1031) “Repository access can sometimes be controlled using an access control function, which comes with the repository. A common technique is to group users and assign different access rights to the different groups. Each of these groups is also assigned specific read/write/delete/modify authority. For example, the following groups may be defined as having increasing rights:...”. Bowman-Amuah does not invent the security technique to assign different user group the different access rights. It is a “common technique” to assign different access rights to different user groups. I use this security technique the first time to implement my integrated database data editing system in the present invention.

Gill et al. (col. 2, lines 46-50) teach that “the multi-media project management system and control system has a number of different data bases for storing multi-media object data and information...” does not mean or suggest that the multi-media data is stored in a relational database. Gill et al. explicitly teach that the multi-media object data is stored in a file system, and there is nowhere in Gill’s invention, Gill et al. mention a relational database.

Allport suggests that (col. 7, lines 60-66) “Preferably, a relational database of entries is maintained, each entry describing multiple features of a particular title or program, such as the time of day of its showing, ...” and (col. 24, lines 28-31) “Editing an object causes a pop-up menu to appear with the available options to edit. Options include the name, the image, the function (label, navigation, sending, IR commands, edit, etc.), a copy and paste objection and save and exist options.” Here, Allport suggests to use a relational database to store some parameter entries, and to use a pop-up menu to provide options for selecting an object, which is not similar to anything in my invention of the integrated database data editing system.

As I stated above, neither Gill et al., Bowman-Amuah nor Allport teaches any mechanism or function similar to my invention of the integrated database data editing system. There is no any relationship between the arts of Gill et al, Bowman-Amuah and Allport. Therefore, it is impossible to one ordinary skill in the time of the invention was made to modify Gill and Bowman-Amuah system to include editing the contents stored

in the relational database as suggested by Allport in order to allow organized data in the table to be edit convenience by the click of mouse.

Regarding my **Claim 4**, I teach that “The Header Panel of the Database Data Manager of Claim 3 contains a list of databases and database tables for each database, and...”.

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, such as a compound document with a Spreadsheet object embedded in a Word application. Koppolu et al. (fig. 32, 3204, VAC1, VAC2, VAC3) teach an example application that uses a form architecture as the basis for its user interface, including a menu bar and application workspace area (3204) with three project icons (VAC1, VAC2, VAC3), which is different from the header panel of the database data manager in my Claim 4. I use the industrial standards of Windows frame layout (header panel and detail panel) and mouse action (double-click) to implement the user interfaces of the Database Data Manager.

(i) Gill et al. (col. 16, lines 48-49) use the pop-up menu, window and line to implement the multi-media objects, which is different from my Claim 4(i) wherein “a Detail Panel is popped-up when double-clicked the database name;”.

(ii) Gill et al. (col. 15, lines 5-8) use a “hot text” that performs a desired action by placing the cursor and clicking the mouse on it, which is different from my Claim 4(ii) wherein “a database table is popped-up when double-clicked the table name.”

Regarding my **Claim 6**, I teach that “A client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet.”

Gill et al. (col. 12, lines 57-67) teach that “The sources of media objects S1-S6 are graphics downloaded from external sources, such as CD-ROM S1 or disk drive S2, graphics generated by additional software resident on the processor P or graphics that are scanned into the system via a peripheral device. Furthermore, video information likewise is obtained from a plurality of external sources including, but not limited to, data communication connections S4 to the file server 28 of the multi-media project

management and control system 20 or to broadcast media, such as Internet or broadcast television, video tape recorders S3, or live feeds S5 from a camera or other such appropriate source of video information.” Gill et al. only teach that the multi-media objects are “downloaded” or “obtained” from the external sources S1-S6. Gill et al. do not teach anything related to my Claim 6.

### **#5. Claims 3 Rejection-35 USC § 103(a)**

My Claims 3 is totally different from the arts of Gill et al (US. Patent No. 6,005,560) in view of Bowman-Anuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701), and cannot be rejected under 35 U.S.C. § 103(a). My Claims 3 is original, significant and patentable under 35 U.S.C. § 101.

Regarding my **Claim 3**, I teach that “The database data editing system of claim 1 contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which provides a user-friendly visual environment and tools to manage and edit the database data contents.” Gill et al., Bowman-Anuah and Allport do not explicitly teach anything related to the database data manager in the client computer comprising a header panel and a detail panel as in my claim 3.

Gill et al. (col. 3, lines 66-67, col. 4. lines 1-3) teach the illustration of the major architectural components of the multi-media project management and control system 20 comprising a plurality of networked processors or workstations, which is totally different to my Claim 3 wherein I teach a database data manager comprising a header panel and a detail panel.

Koppolu et al. teach a computer method and system for interacting with a containee object contained within a container object, more specifically, an Object Linking and Embedding (OLE) method and system in Microsoft Windows environment, such as a Spreadsheet object embedded in a Word document application. Koppolu et al. do not explicitly teach anything related to the database data manager in the client computer comprising a header panel and a detail panel as in my claim 3.

Koppolu et al. (fig. 32) use an industrial standard Window form architecture for user interface, including a menu bar (3203) and application workspace areas (3204 &

3205), which is different from my Claim 3 wherein the Head Panel and the Detail Panel of the Database Data Manager have the parent-child relationship. When a user clicks the database name or the table name listed on the Head Panel, the corresponding Detail Panel is popped up.

As I state above, it is not possible to one ordinary skill in the art at the time of the invention was made to modify the Gill et al, Bowman-Amuah and Allport system to include the Windows form user interface as used by Koppolu in order to provide layout structure to allow the user to visualize and select database data for editing as the Claim 3 in my present invention.

#### **#6. Claims 2 & 5 Rejections-35 USC § 103(a)**

My Claims 2 and 5 are totally different from the arts of Gill et al (US. Patent No. 6,005,560) in view of Bowman-Anuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Koppolu et al. (US Patent No. 5,801,701) and further in view of Moursund (US Patent No. 5,644,739), and cannot be rejected under 35 U.S.C. § 103(a). My Claims 2 and 5 are original, significant and patentable under 35 U.S.C. § 101.

Regarding my **Claim 2**, I teach that “The database data editing system of claim 1 contains the well-defined graphic user interfaces and tools that displays a database table or a subset data of a table and has the following characters:...”.

Gill et al., Bowman-Anuah, Allport and Koppolu do not teach anything related to the user interfaces and tools as my claim 2(iv) wherein “said commercial data editor is popped up from the local client computer when double-clicked the small icon of a table cell by the mouse and the database data is downloaded into the data editor from the remote server database and the edited data is then sent back to the original database when data editing is completed;”. Gill et al. (col. 16, lines 48-49) use the pop-up menu and window to implement multi-media objects. The “pop-up menu” or “window” is one of the industrial standard components for implementing Windows form layout. Gill et al. use these standards to implement their application, which is totally different from the functions and mechanisms used in my claim 2(iv).

Gill et al. (col. 5, lines 1-33) use a plurality of commercial multi-media editors to edit the multi-media objects, which is different from my Claim 2(v) wherein “said data editor is either a text editor or a multimedia editor depending on the database data type inside the table cell.”

Gill et al., Bowman-Anuah, Allport and Koppolu et al. do not explicitly teach the well-defined user interfaces and tools that displays a database table or a subset data of a table and has the following characters as in my claim 2(i)-(iii) wherein “(i) said database data on each table cell is defaulted as read only; and (ii) said database small text data on each table cell is directly edited when single-clicked by a mouse; and (iii) said table cell contains a small icon as a place-holder for the large text data type or large binary data type;”. Koppolu et al. (fig 4, col. 8, lines 25-46) teach the spreadsheet object is embedded in a word processing application, which is totally different from my claim 2(i)-(iii). Koppolu et al. do not suggest anything similar to my claim 2 (i)-(iii) either.

As I state above, it is impossible to one ordinary skill in the art at the time of the invention was made to modify Gill et al., Bowman-Amuah, Allport and Koppolu to include a user interface and a spreadsheet having cell defaulted as read only, the cell can be edited by using the cursor or clicking and the cell having dropping down menu and the buttons added by Moursund to allow the user with the editing tools to use in an easy manner as the functions and mechanisms taught in my claim 2.

Regarding my **Claim 5**, I teach that the detail panel of the database data manager contains the functions and mechanisms as described in claim 5(i)-(vi). Gill et al. teach a multi-media presentation system, Bowman-Amuah teaches a system for affording consistency in a development architecture framework and Allport teaches a remote control by IR (infrared) commands to control various consumer appliances, which are totally different from my Claim 5 wherein the Detail Panel of the Database Data Manager contains a plurality of tools, functions and mechanisms to remotely access, edit and manage the database.

Koppolu et al. (col. 7, lines 53-64) teach a method to edit the containee object, such as a spreadsheet program, in a word processor, which is totally different from my

Claim 5(i) where the Database Designer is used to creating and modify the remote database through either intranet or Internet.

Gill et al., Bowman-Amuah, Allport and Koppolu et al. do not explicitly teach anything related to my claim 5(ii)-(vi) wherein that “(ii) an Entity Relationship Designer for editing and managing the entity relationships of the database tables; and (iii) a Table Designer for designing and modifying the database tables; and (iv) a Database Schema for designing and modifying the database data structure and micros; and (v) a Data Filter for selecting a set of data from one or more database tables; and (vi) an SQL Console for writing and executing the SQL codes to the remote server database.”

Moursund teaches a system and method for adding a button or other type of control to a tool bar or other region of a Windows form. A control is added by dragging an object to a region for holding controls and dropping the object at the desired location of the control in the region. Moursund’s system is totally different from my claim 5 of present invention of the integrated database data editing system.

Moursund (fig. 4G, 112) teaches the control menu boxes 112 located on the top of the container window for displaying the control buttons. Moursund (col. 5, lines 39-45) teaches that “Briefly described, the ‘MICROSOFT ACCESS’ application program is an interactive relational database for the ‘WINDOW’ operating system. The object 26 may be of several different types, including tables, queries, forms, reports, micros, or modules. The “MICROSOFT ACCESS” application program includes a button creation routine 32 for customizing the toolbar 28 in accordance with the present invention.” Microsoft Access database is a simple relational database which can only support small data types, can only run on a PC and the user interface cannot be separated from the database, which is totally different from my claim 5.

As I state above, it is impossible to one ordinary skill in the art at the time of the invention was made to modify Gill, Bowman-Amuah, Allport and Koppolu system to include a button of the tool bar of Microsoft Access to edit or modify the database structure as used by Moursund in order to allow the user to see the entire process and user ease of use.

## **#7. Claim 7 Rejections-35 USC § 103(a)**

My Claims 7 is totally different from the arts of Gill et al (US. Patent No. 6,005,560) in view of Bowman-Anuah (US Patent No. 6,256,773 B1) and further in view of Allport (US. Patent No. 6,104,334) and further in view of Teper et al. (US Patent No. 5,815,665), and cannot be rejected under 35 U.S.C. § 103(a). My Claims 7 is original, significant and patentable under 35 U.S.C. § 101.

Regarding my **Claim 7**, I teach that “A web version of the database data editing system of claim 1 is implemented by using web and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall.” Gill et al., Bowman-Amuah and Allport do not teach an integrated database data editing system deployed and runs on Internet or any other network system or anything similar to my claim 7.

Gill et al. (col. 13, lines 58-67) teach a method to place the text objects and picture objects on a document page, which is totally different from my Claim 7 where the web version of integrated database data editing system is implemented with the Public Key Infrastructure (PKI) and Secure Socket Layer (SSL) and is deployed on Internet or also intranet.

Teper et al. teach an Online Brokering Service providing user authentication and billing services to anonymously and securely purchase online services. Users and service provider sites initially register with the Brokering Service, and are provided with respective client and server software components for using the Brokering Service. Teper et al. (col. 17, lines 23-33) teach that “The client application 42 passes the challenge message to the MSN SSP package 44A via the InitializeSecurityContext API. In response to this API call, the MSN SSP package 44A generates and returns the response message, and computes a session key which may be used for the subsequent encryption of data between the client and server applications 42, 52. (It is envisioned that the session key will be used for encryption primarily by custom applications 42, 52, and that other applications will instead use standard encryption protocols such as the Secure Sockets Layer protocol or the Private Communications Technology protocol.)”. Teper et al. do not teach anything similar to my claim 7.

The Public Key Infrastructure (PKI) technology has been widely used as an industrial standard since 1970's, and the Secure Socket Layer (SSL) is also widely used as an industrial standard for many Internet applications. So far, both PKI and SSL are the best technologies and standards for Internet and other network application security through standard network communication protocols. In my invention, the PKI, SSL and firewall technologies are the first-time used to encrypt and secure the database data transmission between the client computer and the server computer through Internet or intranet.

As I state above, Gill et al., Bowman-Amuah, Allport and Teper et al. do not teach anything related to the web version of integrated database data editing system and security mechanisms as my claim 7. It is impossible for one ordinary skill in the art at the time of the invention was made to modify the Gill et al., Bowman-Amuah and Allport system to include both key encryption and secure socket layer as used by Teper et al. in order to protect the database data transferring from the server to client or over the unsecured Internet.

In conclusion of arguments, my present invention of the integrated database data editing system is original, and is totally different from the prior arts of Gill et al., Bowman-Amuah, Allport, Koppolu et al., Moursund, Teper et al. and any previous inventors, and cannot be rejected under 35 U.S.C. § 103(a). My invention is very significant in both technology and economy aspects, and is patentable under the 35 U.S.C. § 101.

It has taken about seven years now since I filed my patent application in your office on October 2, 2000, which is one third of my productive years in my life. My career and personal life have been greatly suffered due to the delay of allowance of my patent application. Currently, I am survived by the Federal Social Security Disability Benefit Program due to depression. I request your office to reverse the "Office Action Summary" and "Detailed Action" mailed to me on May 18, 2007, which rejected my Claims 1-7. I request your office to approve and allow my patent application Claims 1-7 as soon as possible. Once my patent application is allowed, I will implement it as commercial software products and contribute to our society.

Sincerely,



George Guang Yang, Ph.D.

INVENTOR